



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|--------------------------|----------------------|-------------------------|------------------|
| 09/448,722 | 11/24/1999 | BRUCE D. SUNSTEIN | 2308/102 | 5379 |
| 2101 | 7590 06/07/2002 | | | |
| BROMBERG & SUNSTEIN LLP | | | EXAMINER | |
| 125 SUMME BOSTON, MA | R STREET A 02110-1618 | | EATON, KIMBERLY B | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3621 | iΛ |
| | | | DATE MAILED: 06/07/2002 | 70 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | 8/ | | | |
|--|--|---|--------------------|--|--|--|
| | Application No. | Applicant(s) | | | | |
| • | 09/448,722 | SUNSTEIN ET | SUNSTEIN ET AL. | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Kimberly B Eaton | 2161 | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address | | | | | | |
| Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period v - Failure to reply within the set or extended period for reply will, by statute - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). Status | 36(a). In no event, howevery within the statutory mininwill apply and will expire SI | er, may a reply be timely filed from of thirty (30) days will be considered to X (6) MONTHS from the mailing date of the secome ABANDONED (35 U.S.C. § 133) | ils communication. | | | |
| 1) Responsive to communication(s) filed on 24 c | <u>January 2002</u> . | | | | | |
| , | is action is non-fin | | | | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | ي. منصر | | | | |
| 4) ☐ Claim(s) 1-35 is/are pending in the application | | tion | | | | |
| 4a) Of the above claim(s) is/are withdra | wn iiom considera | uon. | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>1-35</u> is/are rejected. | | | | | | |
| 7) Claim(s) is/are objected to. | | ant. | | | | |
| 8) Claim(s) are subject to restriction and/c Application Papers | or election requirem | ient. | | | | |
| 9)☐ The specification is objected to by the Examiner. | | | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the | | | | | | |
| 11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner. | | | | | | |
| If approved, corrected drawings are required in reply to this Office action. | | | | | | |
| 12) The oath or declaration is objected to by the Examiner. | | | | | | |
| Priority under 35 U.S.C. §§ 119 and 120 | mainaithe condon 25 | LLS C S 110(a) (d) or (f) | | | | |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | | |
| a) ☐ All b) ☐ Some * c) ☐ None of: | to have been reco | vod. | | | | |
| 1. Certified copies of the priority documen | | | | | | |
| 2. Certified copies of the priority documen | | | | | | |
| 3. Copies of the certified copies of the price application from the International But a See the attached detailed Office action for a list | ureau (PCT Rule 1 | 7.2(a)). | onal Stage | | | |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). | | | | | | |
| a) ☐ The translation of the foreign language pr 15)☐ Acknowledgment is made of a claim for domes | | | | | | |
| Attachment(s) | | | | | | |
| Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449) Paper No(s) | 5) 🔲 | Interview Summary (PTO-413) Pap Notice of Informal Patent Applicatio Other: | | | | |

DETAILED ACTION

Claim Objections

1. Claim 16 is objected to because the claim should state dependency to claim 1 in the preamble of the claim.

Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pare Jr. et al. (U.S. Patent No. 6,154,879) and further in view of Bianco et al. (U.S. Patent No. 6,256,737).
- 4. In re claim 1 Pare Jr. et al. shows, in figures 1-16 and related text, a method of administering registration of a personal information in a data base in a manner tending to assure integrity of data therein, the method comprising: obtaining, from each user with respect to whom data is to be placed in the data base, personal information of such user, the content of such personal information initially established by such user in an enrollment phase (column 13, lines 14-17); also obtaining in the enrollment phase a first set of physiological identifiers associated with such user (column 3, lines 43-46; column 13, lines 10-12); storing, in digital storage medium, a data set pertinent to such user, the data set including such user's personal information and a representation of the

Application/Control Number: 09/448,722

Art Unit: 2161

physiological identifiers associated with such user (Fig 2); permitting a subject to modify information in the stored data set pertinent to such user (column 5, lines 11-13)

- 5. Pare Jr. et al. fails to explicitly show the user information can be modified only if (i) the subject provides a new set of physiological identifiers and (ii) it is determined, by recourse to the stored data set, that there is a sufficient match between at least one member in the new set and a corresponding member of the first set, so that the subject is authenticated as such user.
- 6. Bianco et al. shows, in figures 1-34 and related text, in an analogous art related to the utilization of biometric measurements for the authentication of users, permitting a subject to modify information in the stored data set pertinent to such user only if the subject provides a new set of physiological identifiers and it is determined, by recourse to the stored data set, that there is a sufficient match between at least one member in the new set and a corresponding member of the first set, so that the subject is authenticated as such user (column 29, lines 5-10).
- 7. Bianco et al. states that the biometric system (Fig. 1) including the re-enrollment step can be usefully incorporated into banking and financial transaction systems (e.g. ATM machines) (Bianco, column 58, lines 5-14) therefore, it would have been obvious, at the time of the invention, to incorporate the re-enrollment step of Bianco into the biometric ATM access system of Pare.
- 8. In re claim 2 Pare Jr. et al. shows, in figures 1-16 and related text, medical information is a suitable alternative type of data to credit and debit account numbers (column 2, lines 40-48).

- 9. Therefore it would have been obvious to one of skill in the art, at the time of the invention to replace the account numbers obtained from the user and stored in the data set (column 13, lines 14-30) of Pare Jr. et al. with the medical information of Pare Jr. et al. because choosing a suitable alternative from a known list of alternatives is common and well known in the art.
- 10. In re claim 3 Pare Jr. et al. shows, in figures 1-16 and related text, a method according to claim 1, wherein the first set includes a plurality of members (column 13, line 10).
- 11. In re claim 4 Pare Jr. et al. shows, in figures 1-16 and related text, a method according to claim 1, wherein the first set of physiological identifiers includes the appearance of such user's face (column 26, lines 42-44).
- 12. In re claim 5 Pare Jr. et al. shows, in figures 1-16 and related text, a method according to claim 1, wherein the first set of physiological identifiers includes characteristics of utterances of such user (column 5, lines 22-25).
- 13. In re claim 6 Pare Jr. et al. shows, in figures 1-16 and related text, a method according to claim 1, wherein the first set of physiological identifiers includes a fingerprint of such user (column 5, lines 22-25).
- 14. In re claim 7 Pare Jr. et al. shows, in figures 1-16 and related text, a method according to claim 1, wherein the first set of physiological identifiers includes the configuration of an iris in an eye of such user (column 5, lines 22-25).
- 15. In re claim 8 Pare Jr. et al. substantially discloses the invention as claimed but does not explicitly show the first set includes at least one member selected from the

Art Unit: 2161

group consisting of a fingerprint of such user and an configuration of an iris in an eye of such user and at least one member selected from the group consisting of characteristics of utterances of such user and the appearance of such user's face.

- 16. Bianco et al. shows, in figures 1-34 and related text, in an analogous art related to the utilization of biometric measurements for the authentication of users, first set includes at least one member selected from the group consisting of a fingerprint of such user and an configuration of an iris in an eye of such user and at least one member selected from the group consisting of characteristics of utterances of such user and the appearance of such user's face (Fig 15).
- 17. The layering of biometric devices, as shown in Bianco, provides flexibility to apply the appropriate level of protection to each resource without decreasing of network productivity (column 29, line 60 column 30, lines 14).
- 18. In re claim 9 Bianco et al. shows, in figures 1-34 and related text, a method according to claim 1, wherein, pursuant to step (d), a subject is permitted to modify information in the sorted data set only if the subject provides the new set of physiological identifiers under a condition permitting verification, independent of the physiological identifiers, that the new set is being provided by the person purporting to provide them (column 28, line 43- column 29, line 39).
- 19. In re claim 10 Bianco et al. shows, in figures 1-34 and related text, wherein the condition includes the physical presence of the subject when providing the new set (column 29, lines 1-10).

Art Unit: 2161

- 20. In re claim 11 Bianco et al. shows, in figures 1-34 and related text, wherein the condition includes having the subject provide the new set when prompted to do so (column 29, lines 1-10).
- 21. In re claim 12 Bianco et al. shows, in figures 1-34 and related text, wherein the condition includes having the subject provide a non-physiological identifier (column 29, lines 1-10).
- 22. In re claim 13 Bianco et al. shows, in figures 1-34 and related text, wherein the non-physiological identifier is selected from the group consisting of a password and a pass card (column 29, lines 1-10).
- 23. In re claim 14 Bianco et al. shows, in figures 1-34 and related text, wherein the non-physiological identifier is provided in the course of a session, over a computer network, employing a user's public and private keys (column 51, lines 2-4; column 50, lines 35-47)
- 24. In re claim 15 Bianco et al. shows, in figures 1-34 and related text, prompting each user, on a periodic basis, to update the data set pertinent of such user (column 28, lines 43-52).
- 25. In re claim 16 Pare Jr. et al. shows, in figures 1-16 and related text, a method for authenticating a user transaction, the method comprising: obtaining a test set of physiological identifiers from a subject purporting to be a specific user (column 3, lines 43-46); accessing information in the data set pertinent to the specific user stored in accordance with the method of claim 1 (column 3, lines 51-55); and determining if there

Art Unit: 2161

is a sufficient match between at least one member in the test set and a corresponding physiological identifier represented in the data set (column 3, lines 51-55).

- 26. In re claim 17 Pare Jr. et al. shows, in figures 1-16 and related text, 17 a method for authenticating a user transaction, the method comprising: obtaining a test set of physiological identifiers from a subject purporting to be a specific user (column 3, lines 43-46; column 13, lines 10-12); accessing information in a first data set pertinent to the specific user stored in a registration data base, the data base containing information provided by multiple users in a separate data set for each user, each data set of a specific user (Fig 2; column 3, lines 50-59) including (i) personal information, of the specific user, that has been established by the specific user, and (column 13, lines 13-16) (ii) a representation of a first set of physiological identifiers, associated with the specific user, that has been provided by the specific user (column 13, lines 10-14),; determining if there is a sufficient match between at least one member in the test set and a corresponding physiological identifier represented in the data set (column 3, lines 51-59).
- 27. Pare fails to show the data base being maintained under conditions wherein modification by a subject of information in a stored data set pertinent to the specific user is permitted only if (i) the subject provides a new set of physiological identifiers and (ii) it is determined, by recourse to the stored data set, that there is a sufficient match between at least one member in the new set and a corresponding member of the first set, so that the subject is authenticated as the specific user.

Art Unit: 2161

28. Bianco et al. shows, in figures 1-34 and related text, in an analogous art related to the utilization of biometric measurements for the authentication of users, the data base being maintained under conditions wherein modification by a subject of information in a stored data set pertinent to the specific user is permitted only if (i) the subject provides a new set of physiological identifiers and (ii) it is determined, by recourse to the stored data set, that there is a sufficient match between at least one member in the new set and a corresponding member of the first set, so that the subject is authenticated as the specific user (column 29, lines 5-10).

Page 8

- 29. In re claim 18 Pare Jr. et al. shows, in figures 1-16 and related text, the database is accessible via a server at a first location (Fig. 1); obtaining the test of physiological identifiers is performed at a second location remote from the first location (column 5, lines 1-3, Fig. 3); determining if there is a sufficient match includes communicating with the server from the second location over a network (column 9, lines 25-27).
- 30. In re claim 19 Pare Jr. et al. substantially discloses the invention as claimed but fails to show obtaining the test set of physiological identifiers is performed under supervision of a merchant.
- 31. Bianco et al. shows, in figures 1-34 and related text, in an analogous art related to the utilization of biometric measurements for the authentication of users, obtaining the test set of physiological identifiers is performed under supervision of a merchant (column 29, lines 15-21).
- 32. Employing an administrator (merchant) to oversee the enrollment of a user helps ensure that the user enrolling is really the right person (column 28, lines 42-53).

Art Unit: 2161

Therefore, it would have been obvious at the time of the invention to include the administrator of Bianco in the biometric ATM access system of Pare.

- 33. In re claim 20 Bianco et al shows determining if there is a sufficient match is performed without revealing content of the first data set to the merchant (column 28, lines 42-53).
- 34. In re claims 21-28, Pare Jr. et al. substantially discloses the invention as claimed but fails to show the transaction is a change of address for an account, is an application to open an account, the account authorizes the transfer of funds, the account is based on the extension of credit to the account holder, the transaction is an application to a government agency for one of a license and a renewal of a license, the transaction is an application to a government agency for one of a license and a renewal of a license.
- 35. It would have been obvious to one of skill in the art at the time of the invention to make the transaction a change of address for an account, an application to open an account, an application to a government agency for one of a license and a renewal of a license, an application to a government agency for one of a license and a renewal of a license or to make the account based on the extension of credit to the account holder because of these transactions are well known in the art to require user verification and the invention of Bianco describes a method of verifying a user.
- 36. In re claim 29 Pare Jr. et al. shows, in figures 1-16 and related text, a digital storage medium on which has been recorded a multi-user personal information data base, the data base comprising, for each specific user, a data set pertinent to the specific user (column 3, lines 39-43), the data set including: the specific user's personal

Art Unit: 2161

information obtained from the specific user (column 3, lines 39-43); a representation of a first set of physiological identifiers associated with the specific user (column 3, lines 43-46); the user's emergency information obtained from the specific user (column 2, lines 40-48).

- 37. Pare Jr. et al fails to show the storage medium being maintained under conditions wherein modification by a subject of information is a stored data set pertinent to the specific user is permitted only if (i) the subject provides a new set of physiological identifiers and (ii) it is determined, by recourse the stored data set, that there is a sufficient match between at least one member in the new set and a corresponding member of the first set, so that the subject is authenticated as the specific user.
- 38. Bianco et al. shows, in figures 1-34 and related text, in an analogous art related to the utilization of biometric measurements for the authentication of users, the storage medium being maintained under conditions wherein modification by a subject of information in a stored data set pertinent to the specific user is permitted only if (i) the subject provides a new set of physiological identifiers and (ii) it is determined, by recourse the stored data set, that there is a sufficient match between at least one member in the new set and a corresponding member of the first set, so that the subject is authenticated as the specific user (column 29, lines 5-10).
- 39. Bianco et al. states that the biometric system (Fig. 1) including the re-enrollment step can be usefully incorporated into banking and financial transaction systems (e.g. ATM machines) (Bianco, column 58, lines 5-14) therefore, it would have been obvious,

A LL COMPANY

Art Unit: 2161

at the time of the invention, to incorporate the re-enrollment step of Bianco into the biometric ATM access system of Pare.

- 40. In re claim 30 Pare Jr. et al. shows, in figures 1-16 and related text, a system for updating a personal information database containing a data set for each one of multiple users (column 3, lines 39-43), each data set including a user's personal information and a representation of a first set of physiological identifier associated with the user (column 3, lines 39-43), the system comprising: a physiological identifier associated with a subject (column 3, lines 43-46); a user access authorization module, coupled to the physiological identifier transducer (column 5, lines 22-25), the database, for determining whether the output of the physiological identifier transducer sufficiently matches the representation of the first set of physiological identifiers, so that the subject is authenticated as the user (column 3, lines 43-54); a user data set access module, coupled to the user access authorization module and to the database, for accessing the user data set (column 5, lines 10-12); a user data set update module, coupled to the database and to a user input, permitting the user to update such user's corresponding data set in the database (column 5, lines 10-12).
- 41. Pare Jr. et al fails to explicitly show that the user access authorization module has authenticated the subject and the user prior to accessing the user data set.
- 42. Bianco et al. shows, in figures 1-34 and related text, in an analogous art related to the utilization of biometric measurements for the authentication of users, the user access authorization module has authenticated the subject and the user prior to accessing the user data set (column 5, lines 10-12).

Art Unit: 2161

43. Bianco et al. states that the biometric system (Fig. 1) including the re-enrollment step can be usefully incorporated into banking and financial transaction systems (e.g. ATM machines) (Bianco, column 58, lines 5-14) therefore, it would have been obvious, at the time of the invention, to incorporate the re-enrollment step of Bianco into the biometric ATM access system of Pare.

Page 12

- 44. In re claim 31 Pare Jr. et al. shows, in figures 1-16 and related text, a system for authenticating transactions, the system comprising: a multi-user personal information data base, the data base comprising, for each specific user, a data set pertinent to the specific user (column 3, lines 39-43), the data set including: (i) personal information, of the specific user, that has been established by the specific user (column 3, lines 39-43); (ii) a representation of a first set of physiological identifiers, associated with the specific user, that has been provided by the specific user (column 3, lines 43-46); a multiplicity of remotely distributed terminals in communication with the data base, each terminal including a physiological identifier transducer and a communication link with a merchant (column 5, lines 1-5 & 19-33); an authenticity checker, which determines whether there is a sufficient match between the output of the a physiological identifier in the first set (column 3, lines 50-55)
- 45. Pare Jr. et al. fails to explicitly show the data base being under condition wherein modification by a subject of information in a stored data set pertinent to the specific user is permitted only if (i) the subject provides a new set of physiological identifiers and (ii) it is determined, by recourse to the stored data set, that there is a sufficient match

Art Unit: 2161

between at least one member in the new set and a corresponding member of the first set, so that the subject is authenticated as the specific user.

- 46. Bianco et al. shows, in figures 1-34 and related text, in an analogous art related to the utilization of biometric measurements for the authentication of users, the data base being under condition wherein modification by a subject of information in a stored data set pertinent to the specific user is permitted only if (i) the subject provides a new set of physiological identifiers and (ii) it is determined, by recourse to the stored data set, that there is a sufficient match between at least one member in the new set and a corresponding member of the first set, so that the subject is authenticated as the specific user (column 29, lines 5-10).
- 47. Bianco et al. states that the biometric system (Fig. 1) including the re-enrollment step can be usefully incorporated into banking and financial transaction systems (e.g. ATM machines) (Bianco, column 58, lines 5-14) therefore, it would have been obvious, at the time of the invention, to incorporate the re-enrollment step of Bianco into the biometric ATM access system of Pare.
- 48. In re claim 32 Pare Jr. et al. shows, in figures 1-16 and related text, the first set includes a plurality of members (column 13, line 10).
- 49. In re 33 Pare Jr. et al. substantially discloses the invention as claimed but does not explicitly show the first set includes at least one member selected from he group consisting of a fingerprint of the user and the configuration of an iris in an eye of the user and at least one member selected from the group consisting of characteristics of utterances of he user and the appearance of the user's face.

Application/Control Number: 09/448,722 Page 14

Art Unit: 2161

50. Bianco et al. shows, in figures 1-34 and related text, in an analogous art related to the utilization of biometric measurements for the authentication of users, first set includes at least one member selected from the group consisting of a fingerprint of such user and an configuration of an iris in an eye of such user and at least one member selected from the group consisting of characteristics of utterances of such user and the appearance of such user's face (Fig 15).

- 51. The layering of biometric devices, as shown in Bianco, provides flexibility to apply the appropriate level of protection to each resource without decreasing of network productivity (column 29, line 60 column 30, lines 14).
- 52. In re claim 34 Pare Jr. et al shows, in figures 1-16 and related text, obtaining personal information of such user includes obtaining data pertaining to one or more merchants (column 13, lines 13-16).
- 53. In re claim 35 wherein any financial information that may be in the data set is not limited to that of a particular banking or financial institution (column 13, lines 13-16).
- 54. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly B Eaton whose telephone number is 703-305-3229. The examiner can normally be reached Monday through Friday from 8:00 am 6:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 703-305-9768.

The Fax phone number for the UNOFFICIAL FAX for the organization where this application or proceeding is assigned is (703) 746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT").

The Fax phone number for the OFFICIAL FAX for the organization where this application or proceeding is assigned is (703) 746-7239 (for formal communications intended for entry).

The Fax phone number for AFTER-FINAL communications where this application or proceeding is assigned in (703) 746-7238.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600